

CH2M HILL Hanford Group, Inc.	Manual	ESHQ
HOISTING AND RIGGING SAFETY	Document	TFC-ESHQ-S_IS-C-05, REV B-2
	Page	1 of 5
	Issue Date	September 5, 2006
	Effective Date	September 5, 2006

## Ownership matrix

### 1.0 PURPOSE AND SCOPE

This procedure defines the CH2M HILL processes for conducting hoisting and rigging activities in compliance with [DOE-RL-92-36](#), “Hanford Site Hoisting and Rigging Manual.” This procedure applies to all hoisting and rigging activities conducted by, for, or on CH2M HILL controlled facilities.

This procedure does not cover industrial truck usage. For guidance and requirements for industrial trucks, refer to [DOE-RL-92-36](#).

### 2.0 IMPLEMENTATION

This procedure is effective on the date shown in the header.

### 3.0 RESPONSIBILITIES

Responsibilities are contained within Section 4.0.

### 4.0 PROCEDURE

(7.1.1, 7.1.2, 7.1.3, 7.1.5)

#### 4.1 Design, Approval, and Performance of Hoisting and Rigging Evolutions

Hoisting and rigging activities within the scope of this procedure shall be conducted in accordance with [DOE-RL-92-36](#).

While operating cranes in the tank farms, to protect buried utilities in general, use Fluor Hanford-provided outrigger pads. Include the following in work package/folder.

- Use 2-foot square outrigger pads for 22-ton and smaller cranes.
- Use 3-foot square outrigger pads for cranes greater than 22 tons up to 90-ton capacity.
- Use 4-foot square outrigger pads for Grove 110-ton crane.
- All outrigger pads shall be used in accordance with manufacturer’s recommendations.

The rigging engineer may waive this requirement based on review of the lift plan, crane load charts, and RPP-CALC-25074.

Facility Manager/  
Project Manager

1. Determine hoisting and rigging needs for facility and scheduled work activities.
2. Determine if the proposed lift qualifies as a critical lift, special lift, or normal lift.

ESHQ	Document	TFC-ESHQ-S_IS-C-05, REV B-2
	Page	2 of 5
HOISTING AND RIGGING SAFETY	Effective Date	September 5, 2006

3. Relay to the area task planner proposed hoisting and rigging needs and requirements.
- Planner
4. If lift is determined to be a critical lift or special lift, initiate a lift plan to be prepared by an approved author; comply with [DOE-RL-92-36](#), Section 3, "Critical Lifts for Specific Requirements," and [TFC-ENG-DESIGN-C-22](#).
- NOTE: Field revisions to the original plan may be made with concurrence of the field work supervisor, the designated leader, the responsible safety organization, and a CH2M HILL rigging engineer.
- Approved Author
5. Prepare a critical lift plan.
- Planner
6. Ensure the critical lift plan is approved in the following recommended sequence, as applicable.
- CH2M HILL rigging engineer approves the Hoisting and Rigging: Lift Instructions Determination form ([A-6003-884](#))
  - FH Crane and Rigging author prepares and signs the critical lift plan
  - CH2M HILL rigging engineer approves critical lift plan
  - Field work supervisor approves the critical lift plan
  - Facility or project manager approves the critical lift plan
  - CH2M HILL Safety approves the critical lift plan
  - FH Crane and Rigging management approves the critical lift plan.
- NOTE: A copy of the approved critical lift plan shall be provided to the CH2M HILL Crane and Rigging Program manager who is also the owner of this procedure.
7. If lift is determined to be a special lift:
- a. Identify and plan the special lift in accordance with [TFC-ENG-DESIGN-C-22](#). (7.1.4)
  - b. Insert the special lift plan in the work package.
8. Submit the work package that utilizes hoisting and rigging for approval in accordance with [TFC-OPS-MAINT-C-01](#).

Critical Lift Person  
in Charge

9. Perform pre-lift and pre-job requirements in accordance with [DOE-RL-92-36](#) and [TFC-OPS-MAINT-C-02](#).
10. Perform lift as designed and approved in accordance with [DOE-RL-92-36](#).
11. Perform post lift documentation.

NOTE: The documentation for critical lifts shall be transmitted to the manager and is auditable for one year after the lift. For special lifts, documentation shall be placed with the work package document.

#### 4.2 Actions in Support of Crane Evolutions

Rigging Engineer

1. For special and critical lifts, if permanently installed rigging hardware does not have test documentation, ensure rigging hardware and/or lifting attachments have appropriate supporting calculations and design media and includes any inspection requirements, torque requirements, and hoisting and rigging requirements.

Safety and Health

2. Perform functions as the “responsible Safety organization” in accordance with [DOE-RL-92-36](#):
  - a. Ensure subcontractor’s critical lift procedures and governing critical lifts they perform are approved by the subcontractor’s own Safety organization prior to being submitted for CH2M HILL approval.
  - b. Ensure subcontractor’s safety personnel are trained in hoisting and rigging activities that would qualify them to sign on their companies’ critical lifts.

#### 5.0 DEFINITIONS

Outrigger pad. Blocking which is placed under a crane’s float when needed for stability.

#### 6.0 RECORDS

The following records are generated during the performance of this procedure:

- Critical Lift Plans
- Hoisting and Rigging: Lift Instructions Determination form (A-6003-884).

The facility manager or project manager is responsible for record retention and retirement in accordance with [TFC-BSM-IRM DC-C-02](#).

## 7.0 SOURCES

### 7.1 Requirements

1. [29 CFR 1910](#), "Occupational Safety and Health Standards," Subpart N, "Materials Handling and Storage." (S/RID)
2. [29 CFR 1926](#), "Safety and Health Regulations for Construction." (S/RID)
  - a. Subpart H, "Materials Handling, Storage, Use, and Disposal."
  - b. Subpart N, "Cranes, Derricks, Hoists, Elevators, and Conveyors."
  - c. Subpart W, "Rollover Protective Structures; Overhead Protection."
3. [DOE-RL-92-36](#), "Hanford Site Hoisting and Rigging Manual." (S/RID)
4. TFC-ENG-DESIGN-C-22, "Structural Integrity Verification of Lifting Points."
5. TFC-PLN-40, "Hoisting and Rigging Safety Management Program Plan."

### 7.2 References

1. [HNF-IP-1266](#), "Tank Farms Operations Administrative Controls."
2. RPP-8360, "Lifting Bail Evaluation Process."
3. RPP-CALC-25074, "Crane Outrigger Pad Loads over Waste Transfer Lines."
4. TFC-BSM-IRM\_DC-C-02, "Records Management."
5. TFC-ESHQ-S-SAF-C-07, "Safety, Health and Radiological Control Subcontractor Oversight."
6. TFC-ESHQ-S-STD-08, "Safety Inspections."
7. TFC-OPS-MAINT-C-01, "Tank Farm Contractor Work Control."
8. TFC-OPS-MAINT-C-02, "Pre-Job Briefing."
9. TFC-OPS-OPER-C-10, "Vehicle and Dome Load Control in Tank Farm Facilities."
10. TFC-PRJ-CM-C-07, "Construction Notice of Intent."

**Figure 1. Hoisting and Rigging.**